

ROZENGART, M.I.; LIBERMAN, A.L.

Outstanding contribution to the scientific foundations of
petrochemistry; the 70th birthday of Academician Boris
Aleksandrovich Kazanskii. Neftekhimiia 1 no.2:129-140 Mr-Apr
'61. (MIRA 15:2)

(Kazanskii, Boris Aleksandrovich, 1891-)
(Petroleum)

KAZANSKIY, B.A.; DOROGOCHINSKIY, A.Z.; ROZENGART, M.I.; LYUTER, A.V.;
MITROFANOV, M.G.

Effect of the feed rate on the process of aromatization of n-hexane
over an aluminum-chromium catalyst. Kin. i kat. 2 no.2:258-262
Mr-Apr '61. (MIRA 14:6)

1. Institut organicheskoy khimii AN SSSR imeni N. D. Zelinskogo
i Gorznenskiy neftyanoy nauchno-issledovatel'skiy institut.
(Hexane)
(Aromatization)

KAZANSKIY, B.A., akademik; ROZENGART, M.I.; FREYBERG, L.A.

Effect of potassium carbonate and phosphoric acid on the aromatizing
action of chromium oxide. Dokl. AN SSSR 134 no.6:1360-1362 0 '60.
(MIRA 13:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk
SSSR.

(Aromatization)

(Potassium oxide)

(Chromium oxide)

KHARITONOV, I.F., doktor med.nauk (Kazan'); RATNER, Yu.A., prof. (Kazan');
SHUBIN, V.N., prof. (Kazan'); SHULUTKO, L.I., prof. (Kazan');
ROZENGARTEN, M.Yu. (Kazan')

Twenty-seventh All-Union Congress of Surgeons. Kaz.med.zhur. no.5:
96-99 S-O '60. (MIRA 13:11)
(SURGERY---CONGRESSES)

S/020/60/134/006/017/031
B016/B067

AUTHORS: Kazanskiy, B. A., Academician, Rozengart, M. I., and Freyberg, L. A.

TITLE: Effect of Potash and Phosphoric Acid Additions on the Aromatizing Activity of Chromium Oxide

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 6, pp. 1360-1362

TEXT: The aromatizing activity of the Al-Cr catalyst in the reactions of dehydrocyclization of n-heptane and the dehydrogenation of cyclohexane is favored by the alkali and alkaline-earth elements (Ref. 1). The authors wanted to study the effect of additions on the catalytic activity of pure chromium oxide in the conversion reactions of hydrocarbons, since in the Al-Cr catalyst chromium is the effective agent. The experiments which were conducted at 450°C and a volume rate of 0.8 h⁻¹ proved that an addition of 0.25 wt% of K₂O in the form of potash completely inhibits the reactions of dehydrocyclization of n-heptane.

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Effect of Potash and Phosphoric Acid
Additions on the Aromatizing Activity of
Chromium Oxide

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Furthermore, the formation of unsaturated compounds is reduced to 1/7, and the cracking and isomerizing secondary effect of the catalyst is almost completely eliminated. This addition produced the same effect on the dehydrogenation of cyclohexane to benzene. However, toluene was formed from an n-heptane + n-heptene-1-mixture if potash was added to the catalyst. The yield of toluene in this case was by 60% lower than that without addition of potash. The authors wanted to clarify whether the inhibiting effect of potash is a specific result of its alkaline nature. For this purpose they studied the effect of additions of 0.14 wt% of phosphoric acid on chromium oxide. The effect was the same as that of potash. Additions of both types also reduced the hydrogenating effect of the catalyst. These experiments show that the promoting effect of potassium on the Al-Cr catalyst is not due to the interaction of the alkaline addition with chromium oxide. This effect has a more complicated nature and apparently is the consequence of the interaction of all three components: of chromium oxide, of aluminum oxide, and of the alkaline addition. One of the forms of this interaction was described earlier (Ref. 2). The fact that the aromatization of heptane and cyclohexane

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ceases after the introduction of K_2CO_3 or H_3PO_4 on pure chromium oxide, whereas the aromatization of heptane continues, can be explained by the fact that the two additions influence the first stage of catalysis, i.e., activated adsorption. The authors assume that these additions prevent the adsorption of the saturated hydrocarbons at the active centers of the Cr catalyst. The adsorption of the much more active olefin molecules is inhibited much less. To explain the details of this phenomenon, further studies are necessary. The authors mention papers by A. M. Rubinshteyn, N. A. Pribytkova, and A. A. Slinkin (Ref. 2). Table 1 gives the results of the above aromatization experiments. There are 1 table and 2 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo
Akademii nauk SSSR (Institute of Organic Chemistry imeni
N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: July 15, 1960

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S/020/60/132/02/34/067
B011/B002

AUTHORS: Rozengart, M. I., Slinkin, A. A., Rubinshteyn, A. M.

TITLE: Structure and Catalytic Properties of Chromium-silica Gel Catalysts

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 2, pp. 367-370

TEXT: The authors found out that the chromium-silica gel catalyst first treated with ethyl alcohol and then heated in the air current, soon is poisoned during the aromatization (dehydrocyclization) of n-heptane by coke deposition. This catalyst had antiferromagnetic properties and its radiograph clearly showed lines of Cr_2O_3 . The same catalyst but heated in the hydrogen current (instead of air), remained unpoisoned during 2 hours of the experiment, and proved to be paramagnetical, and radiographically amorphous. Fig. 1 gives an adsorption scheme of a paraffin hydrocarbon on crystalline Cr_2O_3 . A new molecular C-C bond develops besides the aromatization. This causes the development of molecule chains and networks of the polymer on the surface of the catalyst. They are transformed into coke. The catalytic experiments were conducted according to the methods of Ref. 7. Fig. 2 shows the changes of the refractive index of the

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Structure and Catalytic Properties of Chromium-silica Gel Catalysts

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catalysates during the experiment. Table 1 illustrates the aromatization of n-heptane and cyclohexane under atmospheric pressure. Hence it is clear that the above-mentioned differences in the behavior of catalysts are not due to admixtures of other metal oxides in silica gel. Table 2 gives data on the phase composition and magnetic properties of the catalysts I-IX investigated by the authors. Hence, these catalysts can be classified into two groups: 1) radiographically amorphous, paramagnetic - samples II. and III. The temperature dependence of their susceptibility follows the law of Curie-Weiss. This allowed the calculation of the magnetic moment (3.2μ B). 2) Samples IV-IX are antiferromagnetic. All their radiographic lines were identified as lines of Cr_2O_3 . Sample VIII produced from sample I by heating in the hydrogen current without alcohol treatment, thus contained crystalline Cr_2O_3 , like samples V. and VI. Sample III however, which was produced by heating sample II in the H_2 current, proved to be radiographically amorphous, and paramagnetic. The authors assume that CrO_3 in the first case is immediately reduced into Cr_2O_3 , and by alcohol treatment in the second case develops some intermediate compound of chromium not affected by air. This intermediate compound however, produces the crystalline Cr_2O_3 when heated in the air current. This intermediate compound possibly is a chromium silicate developing during the alcohol

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treatment of the catalyst. It may consist of non-stoichiometric chromium oxides developing during the reduction of CrO_3 by alcohol, in the absence of other mineral acids. There are 2 figures, 2 tables, and 7 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk
SSSR (Институт органической химии им. Н. Д. Зелинского АН СССР)
Academy of Sciences, USSR) 

PRESENTED: January 23, 1960, by B. A. Kazanskiy, Academician

SUBMITTED: January 19, 1960

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5(2)

SOV/20-126-4-27/62

AUTHORS: Kazanskiy, B. A.; Academician, Rozengart, M. I.;
Kuznetsova, Z. F.

TITLE: The Effect of Some Admixtures of Alkali Elements on the
Properties of Aluminum-chromium Catalysts (Vliyaniye dobavok
shchelochnykh elementov na kataliticheskiye svoystva alyumo-
khromovykh katalizatorov)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 707-790
(USSR)

ABSTRACT: As is known, the admixture of small amounts of potassium
and cesium to the catalysts mentioned in the title, increases
the output of final products in the reaction of aromatizing
paraffin hydrocarbons (Ref 1). In publications however, there
are no reliable statements on a similar effect of other
alkaline elements. The present article is dedicated to the
latter problem. A description follows of the effects of
equivalent amounts of Li, Na, K, Rb and Cs on the activity
of two preparations A and B of the mentioned catalyst, in
the reaction of dehydrogenation of n-heptane at 520°. Lithium
is ineffective for the increase of the output of aromatic
products of heptane. The introduction of sodium however, raises

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the output in both catalysts by 8%. This promoting effect still increased with potassium (13 and 11%), and reached its maximum with rubidium (21 and 15%), for cesium it was 9 and 13%. The same was observed in the dehydrogenation of cyclohexane with A and B. There is a great similarity between the effect mentioned above and that of the same admixtures to catalysts of iron magnesium (Ref 3). If alkali elements are added to the catalysts mentioned in the title, the output of the catalyst increases, i.e. the cracking of hydrocarbons decreases. This gives reason to the opinion that there are active centres in the catalyst concerned which catalyze reactions of cracking and of the polymerization of unsaturated hydrocarbons. In their course they develop carbonium ion, similar to the classical case of the catalyst aluminum silicate. Such an admixture of alkali elements apparently reduces the "coke" sediment on the catalyst and thus increases the stability of the latter (Ref 4). It is to be expected that the application of alkali elements will reduce the temperature of regeneration in the catalyst. This would increase the stability of the latter, and extend the duration of their application. On the

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other hand, the thermal stability of the catalyst is reduced by alkali (Ref 4). The role of this one part of the effect of alkali cannot be explained sufficiently. There are 2 figures, 2 tables, and 6 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: April 13, 1959

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5(3) SOV/20-126-3-31/69
AUTHORS: Kazanskiy, B. A., Academician, Rozengart, M. I., Kuznetsova, Z. F.
TITLE: Destructive Alkylation of Benzene by Propane (Destruktivnoye alkilirovaniye benzola propanom)
PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 571 - 574 (USSR)
ABSTRACT: The reaction of paraffin hydrocarbons with aromatic hydrocarbons can open new ways to the production of various aromatic substances, and contribute to clarify the nature of catalytic transformations. But it belongs to the most poorly investigated branches of hydrocarbon chemistry. Patents (Refs 1,2) show that benzene is alkylated by paraffin hydrocarbons in the presence of hydrogen fluoride, boron fluoride, as well as their mixtures. The patents state that only such paraffins are suitable which possess no less than 5 carbon atoms in the chain. On the basis of references 4-9, it was to be expected that toluene would originate by the interaction of benzene with different paraffin hydrocarbons under pressure and in the presence of nickel catalysts. Preliminary experiments by the authors have confirmed this expectation, for it came true with normal paraffin hydrocarbons (heptane, hexane, butane, propane) at a much lower pressure (60 atmospheres overpressure) than indicated in refer-

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Destructive Alkylation of Benzene by Propane

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ence 6. The said reaction of benzene with propane was closely investigated by the authors on nickel deposited on siliceous earth. Table 1 shows the yields of "alkyl benzenes", table 2 the influence of temperature on this yield. Table 3 indicates the influence of the duration of test on the activity of the catalyst. Figures 1 and 2 show the fractionation curves of the catalyzates. There are 2 figures, 3 tables, and 11 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: March 11, 1959

Card 2/2

8(2)

AUTHORS:

SOV/32-25-4-54/71
Buslayev, R. V., Lavrov, I. A., Lutsek, V. P., Rozengart, M. I.

TITLE:

Impulse Timing Relay for Rectifying Columns (Impul'snoye
rele vremeni dlya rektifikatsionnykh kolonok)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4,
pp 493 - 494 (USSR)

ABSTRACT:

An impulse timing relay was designed for the purpose of automating the removal of distillates from laboratory rectifying columns. Impulses may be altered over a wide range, from 40 impulses per minute to one impulse every three minutes, the impulse duration ranging up to 38 seconds. The apparatus is fed with 127 v alternating current. It is 24 cm long, 15 cm wide, and 16 cm high. The relay is actuated through mechanical switches operated by a reversible electric motor which periodically changes the sense of rotation. It can be seen from the schematic illustration of the relays (Fig), and the description that the electric motor is of the type RD-09, and that an intermediate relay of the type RPT-100 is used. There is 1 figure.

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Impulse Timing Relay for Rectifying Columns

SOV/32-25-4-54/71

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Ze-
linskiy of the Academy of Sciences, USSR)

Card 2/2

AUTHOR: Rozengart, M. I., Kazanskiy, B. A., 20-119-4-24/60
Member, Academy of Sciences, USSR

TITLE: Dehydrocyclization of n-Heptane on Aluminum-Chromium
Catalysts (Degidrotsiklizatsiya n-geptana na
alyumokhromovykh katalizatorakh)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 4,
pp. 716-719 (USSR)

ABSTRACT: The short time of action is one of the peculiarities
of the catalysts in question in the aromatization of
paraffinic hydrocarbons. They must be regenerated after
several hours since they are deactivated by coaly
deposits ("coke"). The authors' experiments concerning
the process mentioned in the title showed that continuously
acting catalysts can be produced which remain active up
to 27 hours and have a yield of 67 percentage by weight
of aromatic compounds during this period. After 100
hours of action with periodic regenerations the duration
of the working period of the catalysts was reduced to
10 - 12 hours and did not change during the following

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Dehydrocyclization of n-Heptane on Aluminum-Chromium Catalysts 20-119-4-24/60

115 - 117 hours of action. After 215 - 217 hours of action the surface of the catalysts was reduced to one third, the volume of the pores 1 : 1.5. The total yield of the reaction products and the toluene yield computed with respect to the heptane which passed through the catalyst is not changed considerably. The experiments with catalysts of different grain size confirmed this assumption. An experimental part follows. From the obtained results follows that the grain size of the catalyst influences the amount of the yield of aromatic compounds. The reaction velocity is influenced by the diffusion of the components of the reaction mixture. Hence follows that the heptane aromatization takes place on a promoted aluminum-chromium catalyst in the diffusion range. The influence of the grain size is a general phenomenon (references 8, 9) for several reactions of saturated hydrocarbons at the catalysts in question. This is apparently explained by the fact that at comparatively high temperatures (450 - 500°) the reaction velocities become equal or

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surpass the diffusion velocity of the hydrocarbons in the catalyst. There are 1 figure, 2 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo
Akademii nauk SSSR (Institute of Organic Chemistry imeni
N. D. Zelinskiy AS USSR)

SUBMITTED: December 26, 1957

Card 3/3

ROZENGART, M. I.

121. Manostat and receiver for vacuum distillation on columns. M. I. Rozengart, A. L. Liberman and D. M. Dubinin (Inst. of Org. Chem., Acad. Sci. U.S.S.R.). *Zhur. Anal. Khim.*, 1956, 11 (3), 351-354. — Apparatus for vacuum fractional distillation with means for keeping the pressure constant during distillation and for collecting an unlimited number of fractions is described. G. S. Saitov

ROZENGART, M.I.; LIBERMAN, A.L.; DUBININ, D.M.

Manostat and receiver for vacuum fractionating columns. Zhur.
anal.khim. 11 no.3:351-354 My-Je '56. (MIRA 9:8)

1. Institut organicheskoy khimii AN SSSR.
(Distillation apparatus)

ROSENBERG, M. N.

"Laboratory Columns for Precise Fractional Distillation of Mixture of Liquids," Iz. Ak. Nauk SSSR, Otdel. Khim. Nauk, No. 1, 1941.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

11

Effect of training on the amount of adenosinetriphosphoric acid in the muscles of rabbits, pigeons and chickens. *Rozengurt, (Mokhimy) 2, 587-55 (1947); cf. C. I. 31, 30, 19.* A decrease in the adenosinetriphosphoric acid content of rabbit, pigeon and chicken muscle is observed under the influence of training. The diminished adenosinetriphosphoric acid content is maintained in rabbits 48 and 72 hrs. after the completion of training. Consequently, the decrease in the adenosinetriphosphoric acid content is not due to muscle fatigue. H. Cohen

4491-665

Chair of Biochemistry, Medical Inst. Dniepropetrovsk

ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

ROZENGART, V.I.

On the ratio of magnesium to adenosine-triphosphoric acid
content in muscles. A.M. KASHPUR, P.A. VERPOLOVICH, AND V.I. ROZENGART.
(CHAIR OF BIOCHEMISTRY, MEDICAL INSTITUTE, DNEPROPETROVSK) vol. 3, no.2,
p. 270, 1938.

1ST AND 2ND ORDERS										1ST AND 2ND ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA Formation of creatinine from phosphocreatine. V. L. Rozenberg and E. I. Bernardelli (Sanitary Chem. Inst., Leningrad). <i>Biokhimiya</i> 13, 35-8(1948).—The formation of creatinine from phosphocreatine is a spontaneous process, and is not dependent on any enzymic system present in muscle. In fact, muscle tissue may be absent. The pH can be varied from 5 to 9 without affecting the rate of creatinine formation in pure soln. NaF increases the decompn. of phosphocreatine in muscle preps., thus forming more creatinine. In the absence of muscle tissue NaF is without effect on the process. H. P. Biochem. Lab., All-Union Sanitary-Chem. Inst., Leningrad																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND ORDERS										1ST AND 2ND ORDERS									

ROZENBERG, V. I.

"The Influence of Diisopropylfluorophosphate on Glycolysis in Muscular Tissue,"

Biokhim., 14, No. 1, 1949.

Mbr., Biochemical Lab., All-Union Sanitary & Chem. Inst., Leningrad, -1948-.

The action of poisons on the thiolic enzyme systems of a cell. M. L. Belen'kil and V. I. Rozengart. *Uspehi Sovremennoi Biol.* (Advances in Modern Biol.) 28, 387-93 (1949).--Review, largely covering the action of As₂S₃ derivs. and the counter-action by BAL. G. M. K.

11f

CA

β -Glucosidase in the brain. N. V. Kartasheva and V. I. Rozengart (V. M. Bekhterev Psychoneurol. Inst., Leningrad). *Biokhimiya* 15, 168-72 (1950).— β -Glucosidase is absent in the brain of man, rabbit, and cat. If sterile conditions are not maintained, the incubation of brain tissue with saline does lead to the formation of glucose, the β -glucosidase having been supplied by contaminating microorganisms (streptococci and staphylococci). H. Priestley

11-2

CA

Preparation of highly purified liver esterase. V. I. Rozen-gart, C. A. Kilbardin, E. I. Bernardelli, and P. A. Plinogenov. *Doklady Akad. Nauk S.S.S.R.* 82, 203-6(1952).—The usual acetone powder (50 g.), whose activity was 0.7 (units of relative activity per mg. of protein), was obtained from pig liver placed in 400 ml. of 0.025 *N* NH_4OH , incubated 0.5 hr. at 35-7°, and filtered through cheesecloth. This was repeated 2-3 times with fresh NH_4OH . The combined exts., 1.3 l., pH 7.5-8.0, activity 14, were acidified with 0.5 *N* AcOH to pH 5.5-5.8, let stand overnight at 3°, and filtered. The filtrate was neutralized to pH 7 by NH_4OH followed by 30 g. $(\text{NH}_4)_2\text{SO}_4$ per 100 ml. soln. and let stand overnight. The ppt. was discarded, and the filtrate, activity 30, was treated with 7.5 g. $(\text{NH}_4)_2\text{SO}_4$ per 100 ml. and let stand overnight to give a crumbly ppt. of protein that contains the

bulk of the enzyme. The ppt. was extd. repeatedly with 45% $(\text{NH}_4)_2\text{SO}_4$ at pH 7.0-7.3, the last extn. being run overnight near 0°. The residual ppt. was taken up in 10-12 ml. of cold H_2O (activity 90) and dialyzed against cold H_2O for 48 hrs. The resulting ppt., filtered off, yields a yellowish soln. of the enzyme with activity 210-220. The product was tested by electrophoresis which showed the presence of 2 components, one being present in small amt. and showing greater mobility. Samples taken from electrophoresis expt. at various locations showed that the more mobile component has relatively low protein content (0.21 mg. per mg.) and has no enzymic activity. Other fractions showed activity but this was well below that of initial prepn. Possibly this was caused by a loss of the prosthetic group under the action of elec. field. This is confirmed by detection of a minor, very rapidly moving component in early stages of electrophoresis. The enzyme prepn. shows max. activity at pH 8-8.5 and purification does not affect this optimum.
G. M. Kosolapoff

ROZENGART, V. I.

USSR/ Medicine - Neurology

Card 1/1 Pub. 22 - 38/62

Authors : Lebedeva, Ye. M.; Maslova, M. N.; and Rozengart, V. I.

Title : Functional changes and the content of macroerg phosphor compounds in the brain during convulsions

Periodical : Dok. AN SSSR 102/3, 563 - 566, May 21, 1955

Abstract : Experiments were conducted on rabbits to determine the effect of convulsions caused by picrotoxin, corasol and electric current on the functional changes and content of macroerg amounts of phosphor compounds (ATF -adenosinetriphosphate, KF- creatine phosphate and NF- inorganic phosphate), in the brain. The physiological factors determining the ATF and KF contents of the brain are discussed. Results obtained are described. Ten references: 8 USSR and 2 USA (1944-1954). Tables; graphs.

Institution :

Submitted by: Academician L. A. Orbeli, January 21, 1955

USSR/Human and Animal Physiology (Normal and Pathological).
Metabolism. Nitrogen Metabolism.

T-2

Abs Jour : Ref Zhur - Biol., No 16, 1958, 74561

Author : Rozengart, V.I., Maslova, M.N.

Inst : AS USSR

Title : Influence of Spasms on the Rate of Introduction of Radiomethionine in Proteins of the Brain and Liver.

Orig Pub : Dokl. AN SSSR, 1956, 109, No 6, 1176-1179.

Abstract : The rate of renewal of proteins in rabbits and rats was determined according to intensity of the introduction of S35 in the protein within 2 hours after the introduction into the vein of methionine-S35 in a dose of $5 \cdot 10^6$ - $10 \cdot 10^6$ pulse/min per 1 kg of weight. Spasms caused in the rabbits by repeated introduction of corasole were accompanied by a significant drop in the rate of renewal of proteins of the

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ROZENGART, V.I.; MASLOVA, M.N.; PANYUKOV, A.N.

Functional changes and ammonia contents in the brain of rabbits
by convulsive affects. Dokl.AN SSSR 110 no.1:122-124 S-O '56.
(MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy sanitarno-khimicheskiy
institut. Predstavleno akademikom V.A.Engel'gardtom.
(BRAIN) (SPASMS) (AMMONIA)

ROZENGART, V.I.; MASLOVA, M.N.

Rate of incorporation of labeled methionine in rabbit tissue in convulsions induced by metrazole and electric current [with summary in English]. Biokhimiia 22 no.6:947-953 N-D '57. (MIRA 11:2)

1. Laboratoriya biokhimii Vsesoyuznogo nauchno-issledovatel'skogo sanitarno-khimicheskogo instituta Akademii meditsinskikh nauk SSSR, Leningrad.

(CONVULSIONS, experimental,
eff. on methionine incorporation in various organs in
rabbits, labeled prep. (Rus))
(METHIONINE, metabolism,
incorporation in various organs in exper. convulsions in
rabbits, labeled prep. (Rus))

BALASHOVA, Ye.K., MASLOVA, M.N., PANYUKOV, A.N., ROZENGART, V.I.

Functional state of the central nervous system and phosphoprotein metabolism of the brain [with summary in English]. Biokhimiia
23 no.5:674-682 S-0 '58 (MIRA 11:11)

1. Sanitarno-khimicheskiy institut Akademii meditsinskikh nauk
SSSR, Leningrad.

(PHOSPHATES, metab.

phosphoproteins in brain, eff. of chem. inhib.
& irritation in animals (Rus))

(BRAIN, metab.

phosphoproteins, eff. of chem. inhib. & irritation
in animals (Rus))

ROZENGART, V.I.; KARTASHEVA, H.V.

Effect of tetraethylpyrophosphate on the ultraviolet absorption
spectrum of purified esterase. Biokhimiia 24 no.4:672-678
Jl-Ag '59. (MIRA 12:11)

1. Laboratoriya biokhimii Instituta toksikologii Akademii
meditsinskikh nauk SSSR, Leningrad.
(PYROPHOSPHATES chem.)
(ESTERASES chem.)

GOLIKOV, Sergey Nikolayevich; ROZENGART, Viktor Iosifovich; SHEVCHENKO,
F.Ya., tekhn. red.

[Pharmacology and toxicology of phosphorus organic compounds]
Farmakologiya i toksikologiya fosfororganicheskikh soedinenii.
Leningrad, Medgiz, 1960. 110 p. (MIRA 16:4)
(PHOSPHORUS ORGANIC COMPOUNDS--TOXICOLOGY)

ROZENGART, V.I.

A new model of esterase catalysis. Dokl.AN SSSR 133 no.5:
1223-1226 Ag '60. (MIRA 13:8)

1. Institut toksikologii Akademii meditsinskikh nauk SSSR.
Predstavleno akad. A.I. Oparinym.
(Esterases) (Catalysis)

ROZENGART, V.I.; SHEPSHELEVICH, L.V.

Mechanism of the action of pyrocatechol as an esterase model.
Biokhimiia 27 no.4:689-697 J1-Ag '62. (MIRA 15:11)

1. Biochemical Laboratory, Institute of Toxicology, Leningrad.
(PYROCATECHOL) (ESTERASES)

ROZENGART, V. I.; SHEPSHELEVICH, L. V.

"Design and Investigation of New Esterase Models on the Basis of Polyphenols."

report ~~made~~ submitted for 6th Intl Biochemistry Cong, New York City, 26 Jul-
1 Aug 1964.

ROZENGART, V.I.; MASLOVA, M.N.

Protein metabolism in the brain. Vop. med. khim. 9 no.1:
3-15 Ja-F '63. (MIRA 17:6)

1. Institut toksikologii Ministerstva zdravookhraneniya
SSSR, Leningrad.

L 23121-66 EWT(1) RO

ACC NR: AP5025870

SOURCE CODE: UR/0020/65/164/004/0937/0940

AUTHOR: Rozengart, V. I.; Balashova, Ye. K.

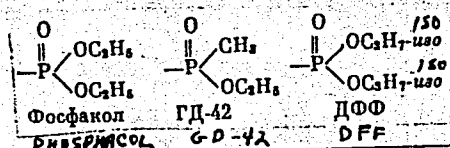
ORG: Institute of Toxicology, Leningrad (Institut toksikologii, Leningrad)

TITLE: The "aging" mechanism of cholinesterase depressed by an organophosphoric inhibitor

SOURCE: AN SSSR. Doklady, V. 164, no. 4, 1965, 937-940

TOPIC TAGS: organic phosphorous compound, systemic toxin, toxicology, enzyme, cell physiology, blood

ABSTRACT: Additional evidence is presented for dealkylation as the possible mechanism of aging, i.e., inability for cholinesterase reactivation. The rate of aging was studied in blood erythrocytes, using the mild dealkylator thiourea and the depressant organophosphorous compounds Phosphacol, GD-42 and DFF differing in the structure of the phosphoryl moiety which binds the enzyme during inactivation.



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L 23121-66

ACC NR: AP5025870

0

For reactivation of the depressed enzyme, 1,1-trimethylene-bis-(4-formyl-pyridine-bromide)dioxime (TMB-4) was applied. Erythrocytes were incubated with the depressant for 30 minutes, then reactivated with TMB-4 and various amounts of thiourea. Freshly depressed enzyme was completely reactivated by TMB-4; if the enzyme had been aged for 3 hours, this persisted with TMB-4 only for the DFF inhibitor. Added thiourea, at a final 0.2 M concentration, depressed reactivability in all cases, i.e., it accelerated aging. This is assumed to result from dealkylation. Thiourea was added to specimens and its effect tested after 5-180 minutes. This was found to be directly related to concentration and duration. It was concluded that these tests confirm the initial assumption and show that cholinesterase aging can be accelerated. Orig. art. has: 2 formulas, 1 table and 1 figure.

SUB CODE: 06, 07/ SUBM DATE: 11Dec64/ SOV REF: 003/ OTH REF: 012

Card 2/2 BLG

ACC NR: AR6033651

(N)

SOURCE CODE: UR/0417/66/000/009/0024/0024

AUTHOR: Rozengart, V. I.

TITLE: Biochemical aspects in the classification of anticholinesterase substances

SOURCE: Ref. zh. Farmakologiya, khimioterapevticheskiye sredstva, toksikologiya, Abs. 9.54.149

REF SOURCE: Tr. Leningr. pediatr. med. in-ta, vyp. 32, 1965, 140-151

TOPIC TAGS: anticholinesterase, biochemistry, neurophysiology, enzyme

ABSTRACT:

Anticholinesterases were classed as "reversible" or "irreversible" cholinesterase inhibitors on the basis of their biochemical mechanisms. Group I compounds form covalent bonds between the acyl group of the inhibitor and the nucleophilic group of the covalent center (organophosphorus compounds, carbamates) while the nitrogen atoms of group II compounds react with the anionic centers of the substrate (quaternary ammonium compounds). [LP]

SUB CODE: 06

WA-50; CBE No. 14

Card 1/1

UDC: 615.785.4

ROZENGART, V.I.; BALASHOVA, Ye.K.

"Aging" mechanism of cholinesterase depressed by organophosphorus inhibitors. Dokl. AN SSSR 164 no.4:937-940 O '65.

(MIRA 18:10)

1. Institut toksikologii, Leningrad. Submitted December 22, 1964.

YAKOVLEV, V.A.; ROZENGART, Ye.V.

Model studies on the action of esterases. Dokl. AN SSSR 137 no.6:
1467-1469 Ap '61. (MIRA 14:4)

1. Institut evolyutsionnoy fiziologii imeni I.M.Sechenova AN SSSR.
Predstavleno akademikom M.I.Kabachnikom.
(Esterase)

GODOVIKOV, N.N.; GODYNA, Ye.I.; KABACHNIK, M.I., akademik; MIKHEL'SON, M.Ye.;
ROZENGART, Ye.V.; YAKOVLEV, V.A.

Anticholinesterase properties of some O-ethyl-S-alkylmethyl
thiophosphinates. Dokl. AN SSSR 151 no.5:1104-1107 Ag '63.
(MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Institut
evolyutsionnoy fiziologii im. I.M.Sechenova AN SSSR.
(Cholinesterases) (Phosphinic acid)

L 40730-65 EWT(1)/EWA(j)/EWA(b)-2 RO

ACCESSION NR: AP5012399

UR/0020/64/157/006/1459/1462

24
23
B

AUTHOR: Brestkin, A. P.; Volkova, R. I.; Rozengart, Ye. V.

TITLE: Protective action of acetylcholine in the interaction of acetylcholinesterase with organophosphorus inhibitors

SOURCE: AN SSSR. Doklady, v. 157, no. 6, 1964, 1459-1462

TOPIC TAGS: biochemistry, enzyme, organic phosphorus compound

Abstract: In several studies, it was shown that the experimental rate constant of reaction of irreversible organophosphorus inhibitors (OPI) with cholinesterases is reduced in the presence of acetylcholine (AC), the more so the higher the AC concentration. The values of this constant K_{II} is found from the formula:

$$K_{II} = 2.3 / \sqrt{t} (\lg (v_0/v_{1,s})).$$

where $1/$ = concentration of OPI, which is considerably greater than the enzyme concentration, v_0 = rate of enzymatic hydrolysis of AC in the absence of OPI, $v_{1,s}$ = rate of enzymatic hydrolysis after t minutes of enzyme incubation with OPI in the presence of AC. Theoretical analysis affords the conclusion that two fundamentally distinct effects of protective action of the substrate are

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ACCESSION NR: AP5012399

present in the interaction of aeral cholinesterase with OPI. The substrate, altering the active surface of the enzyme, reduces the rate constant of its reaction with OPI. This effect can be called the first protective effect. The substrate forms with the enzyme intermediate complexes, of which only can react with OPI. This also leads to a reduced level of enzyme inactivation. This effect can be called the second protective effect.

Orig. art. has 1 figure, 7 formulas, 2 graphs, and 1 table.

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova Akademii nauk SSSR (Institute of Evolutionary Physiology, Academy of Sciences, SSSR)

SUBMITTED: 03Mar64

ENCL: 00

SUB CODE: LS, OC

NO REF SOV: 004

OTHER: 004

JPRS

Cord

BRESTKIN, A.P.; GODOVIKOV, N.N.; GODYNA, Ye.I.; KABACHNIK, M.I., akademik;
MIKHEL'SON, M.Ya.; ROZENGART, Ye.V.; YAKOVLEV, V.A.

Anticholinesterase properties of o-ethyl-S-alkylmethylthiophosphates. Inhibition kinetics and structure of the active surface of cholinesterases. Dokl. AN SSSR 158 no.4:880-883 O '64. (MIRA 17:11)

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova AN SSSR
i Institut elementoorganicheskikh soyedineniy AN SSSR.

ROZENGART, Ye.V.; GODYNA, Ye.I.; GODOVIKOV, N.N.

Anticholinesterase properties of some O-ethyl-S-alkylmethyl-thiophosphinates. Report No.2: Kinetics of inhibition of cholinesterase and acetylcholinesterase with O-ethyl-S-n-alkylmethyl thiophosphinates. Izv. AN SSSR. Ser. khim. no.8:1370-1375 '65. (MIRA 18:9)

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova
AN SSSR i Institut elementoorganicheskikh soyedineniy AN
SSSR.

L 64323-65 EWT(1)/EWA(1)/EWT(m)/EWA(b)-2 BW/RO/RM

ACCESSION NR: AP5022929

UR/0062/65/000/008/1370/1375

661.718.1

AUTHOR: Rozenhart, Ye. V.; Godyna, Ye. I.; Godovikov, N. N.

TITLE: Anticholinesterase properties of some O-ethyl S-alkyl methylthiophosphonates;
2. Kinetics of inhibition of cholinesterase and acetylcholinesterase by O-ethyl
S-n-alkyl methylthiophosphonates

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1965, 1370-1375

TOPIC TAGS: nerve gas, chemical warfare agent, cholinesterase inhibitor, anti-
cholinesterase activity, thiophosphate ester

ABSTRACT: The kinetics of inhibition of equine blood-serum cholinesterase and bovine
erythrocyte acetylcholinesterase by a series of O-ethyl S-n-alkyl methylthiophospho-
nates were studied. The n-alkyl ranged from C₂ to C₁₀. The rate constants of alka-
line hydrolysis of the above esters were determined. It was found that the inhibiting
action of the esters increases with increasing alkyl size, up to C₆ for cholinesterase
and up to C₈ for acetylcholinesterase. A further increase in alkyl size does not
bring about any increase in inhibition. Alkaline hydrolysis rate constants for all
compounds were found to be nearly identical. The authors suggest that variations in

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ACCESSION NR: AP5022929

anticholinesterase activity among the above esters are determined mainly by steric factors, rather than by electron-density aspects, i.e., phosphorylating ability. The inhibition mechanism is discussed. The kinetic data and the physical constants of the esters are given in tabular form. Orig. art. has: 2 figures and 4 tables. [VS]

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova Akademii nauk SSSR (Institute of Evolutionary Physiology, Academy of Sciences, SSSR); Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Heteroorganic Compounds, Academy of Sciences, SSSR)

SUBMITTED: 22Nov63

ENCL: 00

SUB CODE: CB, OC

NO REF SOV: 006

OTHER: 003

ATD PRESS: 483

Card 2/2

ROZENGART, Ye.V.

Interaction between *O*-ethyl-S-alkylmethylthiophosphinates and cholinesterase in the presence of acetylcholine. Biokhimiia 30 no.2:344-349
Mr-Apr '65. (MIRA 18:7)

1. Institut evolyutsionnoy fiziologii i biokhimii imeni Sechenova AN
SSSR, Leningrad.

KAPLAN, Veniamin Grigor'yevich; TAYTS, N.Yu., prof., doktor tekhn. nauk, retsenzent; POLETAYEV, L.B., kand. tekhn. nauk, retsenzent; ROZEN-GART, Yu.B., kand. tekhn. nauk, retsenzent; VESELKOV, N.G., red.; LANOVSKAYA, M.R., red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Adjustment and operation of metal heating furnaces] Naladka i ekspluatatsiia pechei dlia nagreva metalla. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 352 p. (MIRA 14:9)

(Furnaces, Heating)

18(3)

AUTHORS:

Rozengart, Yu. I., Tayts, N. Yu.,
Sorokin, A. A., Poletayev, B. L.

SOV/163-59-1-17/50

TITLE:

Investigation of the Performance of a Slit Radiation Regenerator
(Issledovaniye raboty shchelevogo radiatsionnogo rekuperatora)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 1,
pp 80-84 (USSR)

ABSTRACT:

At present slit radiation regenerators are used to a large extent. They are composed of two cylinders. The combustion gases pass through the inside cylinder, the air streams through the annular duct between the cylinders. The Dnepropetrovskiy metallurgicheskii institut (Dnepropetrovsk Institute of Metallurgy) in collaboration with the metallurgicheskii zavod im. Dzerzhinskogo (Metallurgical Plant imeni Dzerzhinskiy) designed a slit radiation regenerator for soaking pits. This type of regenerator differs from others described in publications by the feature of being provided with a bilateral heating of the walls. This is accomplished by a flue gas duct in the inside tube of the regenerator and between the outside tube and the regeneration chamber. The theoretical investigation (Ref 1) showed that by this method

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Investigation of the Performance of a Slit Radiation Regenerator SOV/163-59-1-17/50

of heating the efficiency of the regenerator is considerably increased. A test unit was erected in the above-mentioned works for the purpose of studying the regenerator in question. It was composed of a furnace with two interconnected chambers, a combustion chamber, and a regeneration chamber. The air supply of the test unit was provided by two VVD-8 high-pressure fans with 20 kw electric motors.² The slit radiation regenerator with a heating surface of 21.6 m², intended for use with soaking pits and with a rated capacity of 2500 m³/hour of air heated to a temperature of up to 700° was constructed of 5.5 mm EI417 steel sheet. The investigations were carried out at different temperatures of the flue gases entering the regenerator (varying between 800 and 1300°) with unilateral and bilateral heating and an uniflow direction of the flue gases and of the air. A counterflow arrangement of air and the flue gases at gas temperatures of 800, 900, and 1000° with bilateral heating was also investigated. V. A. Epshteyn, Engineer, and I. I. Kharybin assisted in the experiments. It was found that the regenerator tested operates with a high thermal efficiency within a wide range of gas temperature.

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Investigation of the Performance of a Slit Radiation Regenerator SOV/163-59-1-17/50

The investigations substantiated the conclusions drawn from theoretical considerations concerning the high efficiency of such a regenerator with bilateral heating. The engineering data obtained for a wide range of flue gas temperature (from 800 to 1300°) indicate the advantages of using such regenerators in this range of flue gas temperatures. The experiments at the test stand are at present continued. The problem of the optimum flue gas distribution between the inside and the outside duct is investigated. The Dnepropetrovsk Institute of Metallurgy and the Stal'proyekt are at present engaged in developing a multi-tube type of radiation regenerators. There are 5 figures, 1 table, and 2 Soviet references.

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk Institute of Metallurgy)

SUBMITTED: June 27, 1958

Card 3/3

ROZENGART, Yu.I., kand. tekhn. nauk

Nonoxidizing and low-oxidizing heating of metal in holding
furnaces. Met. i gornorud. prom. no.3:38-40 My-Je '65.
(MIRA 18:11)

ROZENGART, Yu.I., dotsent, kand.tekhn.nauk; TAYTS, N.Yu., prof., doktor tekhn.
nauk; EPSHTEYN, V.A., inzh.; LITOVCHENKO, Yu.K., inzh.; KHUDIK, V.T.,
inzh.; MININZON, R.D., inzh.

Study of nonoxidizing heating of alloy steels. Stal' 25 no.5:469-
473 My '65. (MIRA 18:6)

1. Dnepropetrovskiy metallurgicheskiy institut i zavod
"Dneprospetsstal'".

ROZENGART, Yu.I., kand. tekhn. nauk, dotsent; TAYTS, N.Yu., doktor tekhn. nauk, prof.; SPIVAK, E.I. inzh.; SOROKIN, A.A., inzh.; POLETAYEV, B.L., kand. tekhn. nauk; KLIMENKO, G.P., inzh.; KOROTAYEV, M.M., inzh.; STRUCHENEVSKIY, B.B., inzh.

Investigating the performance of holding furnaces for nonoxidizing heating. Stal' 23 no.9:848-853 S '63. (MIRA 16:10)

1. Dnepropetrovskiy metallurgicheskiy institut, TSentroenergochermet, zavod im. Dzerzhinskogo i Gosudarstvennyy soyuznyy institut po proyektirovaniyu agregatov staleliteynogo i prokatnogo proizvodstva dlya chernoy metallurgii.

TAYTS, Noy Yur'yevich; ROZENGART, Yuriy Iosifovich; KHMARA, S.M.,
red.; KOMAROV, S.I., red.izd-va; ISLENT'YEVA, P.G.,
tekhn. red.

[Continuous heating furnace] Metodicheskie nagrevatel'-
nye pechi. Izd.2., perer. i dop. Moskva, Metallurgiz-
dat, 1964. 408 p. (MIRA 17:2)

TAYTS, N.Yu., doktor tekhn. nauk; ROZENGART, Yu.I., kand. tekhn. nauk

All-Union Conference on nonoxidizing and rapid heating of
steel. Met. i gornorud. prom. no.1:76-77 Ja-P '64.

(MIRA 17:10)

ROZENGART, Yu.I., dotsent, kand. tekhn. nauk; TAYTS, N.Yu., prof.,
doktor tekhn. nauk; SOROKIN, A.A., inzh.; POLETAYEV, B.L.,
kand. tekhn. nauk

Expansion of research on the nonscale heating of metal at
the Dzerzhinskii Plant. Stal' 24 no.5:462-466 My '64.
(MIRA 17:12)

1. Dnepropetrovskiy metallurgicheskii institut i Dneprovskiy
metallurgicheskii zavod im. Dzerzhinskogo.

ROZENGART, Yu.I.; TAYTS, N.Yu.; SPIVAK, E.I.; SOROKIN, A.A.;
POLETAYEV, B.L.

Effect of sulfur on metal loss during heating. Izv. vys.
ucheb. zav.; chern. met. 7 no.2:177-182 '64.

(MIRA 17:3)

1. Dnepropetrovskiy metallurgicheskiy institut, Tsentro-
energometallurgprom i zavod im. F.E. Dzerzhinskogo.

AUTHORS: Tayts, N. Yu. Doctor of Technical Science, 133-58-5-30/31
Rozengart, Yu. I., Candidate of Technical Science,
Sorokin, A. A., Engineer, and Poletayev, B. L., Candidate
of Technical Science

TITLE: High Temperature Preheating of Air in Radiation
Recuperators (Vysokotemperaturnyy podogrev vozdukh
v radiatsionnykh rekuperatorakh)

PERIODICAL: Stal', 1958, Nr 5, pp 472-479 (USSR)

ABSTRACT: The object of the paper is to give a theoretical analysis
of heat exchange conditions in radiation recuperators in
order to develop a method for their design calculations
and the choice of optimal schemes of radiation
recuperators for soaking pits. Theoretical equations
for the determination of heat exchange in recuperators
are given. On the basis of the equations four different
schemes of radiation recuperators are compared:
1 - direct current recuperator with heating from two sides;
2 - counter-current recuperator with heating from two sides;
3 - direct current recuperator with heating on one side and
4 - counter-current recuperator with heating on one side.
It is concluded that for soaking pits the first scheme

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133-58-5-30/31

High Temperature Preheating of Air in Radiation Recuperators

is the most advantageous. An experimental recuperator (Fig.7) was designed and its operation investigated. The results of one heating with cold charge are shown in Fig.8. The preheating of air reached 650°C and the coefficient of heat transfer $45 \text{ K cal/m}^2\text{hr}^{\circ}\text{C}$. The resistance of the whole air duct at $2500 \text{ m}^3/\text{hr}$ was about $450 \text{ mm H}_2\text{O}$. Some deficiencies in the operation were noted: the destruction of welded joints and non-uniform heating of the surface of the tubes due to a non-uniform distribution of air. A second recuperator is being designed in which the above deficiencies will be removed.

There are 2 tables and 9 figures.

ASSOCIATIONS: Dnepropetrovskiy metallurgicheskiy institut
(Dnepropetrovsk Metallurgical Institute),
Zavod im. Dzerzhinskogo (Plant imeni Dzerzhinskiy)

Card 2/2

ROZENGART, Yu.I.

Temperature and thermal conditions of holding furnaces in the non-oxidizing heating of metals. Izv. vys. ucheb. zav.; Chern. met. 6 no.5:188-195 '63. (MIRA 16:7)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Furnaces, Heating) (Oxidation)

GOL'DFARB, Emil' Mikhaylovich; KRAVTSOV, Aleksandr Feodos'yevich; RADCHENKO, Irina Ivanovna; ROZENGART, Yuriy Iosifovich; SEMIKHIN, Iosif Danilovich; TAYTS, Noy Yur'yevich, prof., doktor tekhn. nauk, red.; CHUMACHENKO, T., vedushchiy red.; BESFYATOV, R., tekhn. red.

[Calculations for heating furnaces] Raschety nagrevatel'nykh pechei. Pod red. N.IU. Taitsa. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1958.
421 p. (MIRA 11:8)

(Furnaces, Heating)

TAYTS, N.Yu., doktor tekhn. nauk; ROZENGART, Yu.I., kand. tekhn. nauk;
SOROKIN, A.A., inzh.; POLETAYEV, B.L., kand. tekhn. nauk.

High temperature air preheating in radiant recuperators. Stal'
18 no.5:472-479 My '58. (MIRA 11:6)

1. Dnepropetrovskiy metallurgicheskiy institut i zavod im.
Dzerzhinskogo.

(Air preheaters)

ROZENGART, Yu.I.; TAYTS, N.Yu.; SOROKIN, A.A.; POLETAYEV, B.L.

Investigating the operation of radiation slit recuperators.
Nauch.dokl.vys.shkoly; met. no.1:80-84 '59. (MIRA 12:5)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Air preheaters)

SEMIKIN, I.D., professor; ROZENGART, Yu.I., kandidat tekhnicheskikh nauk, dotsent;
GOL'DFARB, E.M., kandidat tekhnicheskikh nauk.

Heating massive bodies by radiation. Stal' 16 no.3:252-256 Mr '56.
(MLRA 9:7)

1.Dnepropetrovskiy metallurgicheskiy institut.
(Heat--Radiation and absorption) (Electrometallurgy)

S/709/60/025/001/002/006
D040/D113

AUTHOR: Rozengart, Yu.I., Docent

TITLE: Nonoxidizing metal heating in holding furnaces

SOURCE: Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii. Trudy, v. 25, pt. 1. Moscow, 1960. Raschety, konstruirovaniye i ekspluatatsiya nagrevatel'nykh pechey: materialy Vsesoyuznogo soveshchaniya, 147-154

TEXT: The paper deals with the preliminary results of a joint experimental investigation on nonoxidizing holding furnaces being conducted by the Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk Metallurgical Institute), the zavod im. Dzerzhinskogo (Plant im. Dzerzhinskiy) and the Stal'proyekt. The data concern the effect of air feed rate on metal oxidation, and the conversion of a holding furnace at the above-mentioned plant to a non-oxidizing one. The experimental furnace was heated with coke-oven gas. ⁴M-4 (M-4) steel specimens, 16 x 16 mm in cross section and 170 mm in

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Nonoxidizing metal ...

S/709/60/025/001/002/006
D040/D113

length, were heated for 1 hr at different temperature and air feed rate (α). An Orsat gas analyzer was used for determining CO_2 and O_2 , and a **BTI** (VTI) analyzer for full analysis. The gas and air consumption was measured with diaphragms. Calculations for the required α and air preheating temperatures for other industrial fuels, i.e. natural and blast furnace gas, showed that coke-oven gas is superior because it requires less hot air and causes less soot during incomplete combustion. It is planned to use double lining (Fig.6) for the welding zone of the holding furnace at the above-mentioned plant, to make the zone air-tight and maintain positive pressure. This design has been successfully tested. The finally selected pre-mixing burners with forced air and gas feed proved satisfactory and no soot formed in the furnace chamber. Several stages of air blowpipes should be used in the continuous zone of the furnace to burn up the products of incomplete combustion, and to empirically determine the final position of the blowpipes. Incomplete-combustion products and secondary air can be fully mixed (in a real furnace) at a distance of nearly 1.5 m from the secondary air

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D040/D113

inlet. The use of a solid bottom in the entire welding zone could be used to reduce heat losses. The experimental data and theoretical calculations proved that metal can be heated in holding furnaces with practically no oxidation. The author together with V.L.Poletayev, Candidate of Technical Sciences, A.A.Sorokin, Engineer, N.Yu.Tayts, Professor, and others is conducting the joint investigation; Engineers V.A.Epshteyn and L.S. Koruma have also taken part. V.F.Kopytov's method was used for calculating incomplete combustion. There are 6 figures and 5 references: 1 Soviet and 4 non-Soviet bloc. The two English-language references are: Steel, no. 10, 1956; Iron and Coal Trades Review, no. 4639, 1957.

ASSOCIATION: Dnepropetrovskiy metallurgicheskii institut (Dnepropetrovsk Metallurgical Institute).

Card 3/4

TAYTS, Noy Yur'yevich; ROZENGART, Yuriy Iosifovich; KHMARA, S.M.,
otvetstvennyy redaktor; LIBERMAN, S.S., redaktor izdatel'stva;
ANDREYEV, S.P., tekhnicheskiy redaktor

[Continuous heating furnaces] Metodicheskie nagrevatel'nye pechi.
Khar'kov, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi
metallurgii, 1956. 248 p. (MLRA 9:11)
(Furnaces)

ROZENGARTEN, M.Yu.

Isolated ligation of the bronchi under hypothermia in the treatment of bronchothoracic fistulae [with summary in French]. Probl.tub. 36 no.5:113-114 '58 (MIRA 11:8)

1. Iz khirurgicheskogo legochnogo otdeleniya (zav. M.Yu. Rozengarten) Tomskogo gorodskogo protivotuberkuleznogo dispansera (glavnyy vrach K.S. Terent'yeva)

(TUBERCULOSIS, PULMONARY, surg.

cavernotomy, postop. bronchotheracic fistulae,
bronchial ligation in hypothermia (Rus))

(HYPOTHERMIA,

in bronchial ligation in bronchothoracic fistula
after cavernotomy (Rus))

(BRONCHI, fistula

bronchothoracic, after cavernotomy, bronchial ligation
in hypethermia (Rus))

ROZENGARTEN, M.Yu.

Case of an injury to the patent ductus arteriosus during a segmentary resection of the lung. Kaz. med. zhur. no. 4:62-63 JI-Ag '60. (MIRA 13:8)

1. Iz Kazanskogo protivotuberkuleznogo gosptalya dlya invalidov Otechestvennoy voyny (nachal'nik - N.S. Valeyev) i kafedry tuberkuleza (zav. - dotsent P.L. Vinnikov) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey im. V.I. Lenina.

(LUNGS—SURGERY) (DUCTUS ARTERIOSUS)

ROZENGARTEN, M.Yu. (Kazan')

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(LUNGS—COLLAPSE) (NECK—TUMORS)

TROYNIN, Mitrofan Fedorovich; USHAKOV, Nikolay Stepanovich;
FILIPPOV, N.M., inzh., retsenzent; ROZENGAUZ, B.M., inzh.,
retsenzent; VEREVKIN, N.S., kand. tekhn. nauk, red.;
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Pod red. N.S.Verevkina. Leningrad, Lenizdat, 1962. 263 p.

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Samuil Borisovich Banne. Keks i khim. no. 6:64 '56.
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(MLRA 9:10)

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Roentgenotherapy of disseminated laryngeal cancer. Vest. otorinolar.,
Moskva 14 no. 3:62-66 May-June 1952. (GML 22:4)

1. Docents. 2. Of the Ukrainian Roentgen-Radiological Oncological
Institute (Director -- Docent Ye. A. Bazlov), Khar'kov.

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29317 Rentgenoterapiya raka gortani. Voprosy onkologii i rentgenologii, No 1-2,
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(GIML 24:1)

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LEVIN, Ya.F., dotsent; ROZENGGAUZ, D.Ye., dotsent; YANKELEVICH, M.Ye., dotsent.

On the paper by T.M. Klepikova-Troitskaia "On radiotherapy of laryngeal cancer with a preliminary ligation of afferent vessels" Vest. rent i rad. no.6:74-75 N-D '55. (MLRA 9:4)

1. Iz Ukrainskogo rentgeno-radiologicheskogo i onkologicheskogo instituta (dir.Dotsent Ye.A.Bazlov)

(LARYNX, neoplasms
ther., radiother., with preliminary ligation of afferent
blood vessels)

(RADIOTHERAPY, in various dis.
cancer of larynx, preliminary ligation of afferent blood
vessels)

PANASENKO, M.D., kandidat tekhnicheskikh nauk; ROZENGAUZ, I.N., kandidat tekhnicheskikh nauk; FILIMONOV, A.I., kandidat tekhnicheskikh nauk.

Individual separating devices developed by the All-Union Heat-Engineering Institute. Teploenergetika 3 no.3:22-26 Mr '56.
(MLRA 9:5)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Boilers--Accessories)

Robert M. ...
AID P - 4223

Subject : USSR/Heat and Power Engineering
Card 1/1 Pub. 110 a - 4/15
Authors : Panasenko, M. D., I. N. Rozengauz, and A. I. Filimonov,
Kand. Tech. Sci.
Title : Individual separators of the VTI type
Periodical : Teploenergetika, 3, 22-26, Mr 1956
Abstract : Three different types of separators designed by the
VTI are discussed in detail. It is reported that
TP-230 boilers equipped with these new separators produce
steam of a better quality than the steam obtained from
the standard-type equipment. Eight diagrams.
Institution : All-Union Heat Engineering Institute
Submitted : No date

ROZENGAUZ, I.N.

KOT, A.A.; ROZENGAUZ, I.N.

Ways of improving the water regimen of high pressure steam boiler.

Energ.bul. no.9:13-16 S '54.

(MIRA 7:9)

(Steam boilers)

ROZENGAUS, I. N.

USSR/Engineering - Heat, Boilers

Oct 52

"Thermochemical Test of a Boiler With State Evaporation," M. D. Panasenko and
A. I. Filimonov, Cands Tech Sci, Engr I. N. Rozengaus, et al.

Iz V-S Teplotekh Inst, No 10, pp 20-25

Experimentally establishes effectiveness of using stage evaporation in high-pressure
boilers when considerable amount of softened water is added to feed water. Carrying
away of silica and other mineral admixts at pressure of 100-110 atm may be decreased
by improvement in steam sepn. This factor permits increase in allowable concn of
silica in boiler water, thus eliminating desiliconization of addnl water.

PA 247TS7

SOV/124-58-2-2495

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 128 (USSR)

AUTHOR: Rozengauz, B. F.

TITLE: A Contribution to the Measurement of the Face Hardness of Wood
(K izmereniyu tortsovoy tverdosti drevesiny)

PERIODICAL: Sb. tr. fak. mekhan. tekhnol. drevesiny. Ural'skiy lesotekhn.
in-t, 1956, Nr 1, pp 23-36

ABSTRACT: Starting from the proposition that consistent hardness values are obtained with a small penetration of the ball point into a material, the author proposes a method for the determination of the face hardness; the new method consists of a modification of the Jahnke method. The diameter of the ball is enlarged to 30 mm, the indentation depth is held to 2.3 mm, and the circular imprint area equals 2 cm^3 . Comparative tests are carried out for various methods of hardness determination. The Jahnke method recommended by All-Union Standard GOST 6336 yields underrated hardness values for a number of woods. The modified Jahnke method does away with this shortcoming. It is shown that the highest correlation coefficient (0.944 ± 0.01) between the compressive strength along the fibers and the hardness obtains when the

Card 1/2

SOV/124-58-2-2495

A Contribution to the Measurement of the Face Hardness of Wood

proposed method is used for the determination of the hardness values. In order to obtain the compressive strength of a wood along the fibers in terms of the hardness, the author recommends the formula $B=0.96H+12$, where B is the compressive strength at a 10% moisture content and H is the face hardness obtained according to the modified Jahnke method for the same moisture content.

B. N. Ugolev

Card 2/2

COMMON ELEMENTS																										RARE EARTH ELEMENTS																										METALS AND ALLOYS																										NON-METALS AND COMPOUNDS																										GASES AND LIQUIDS																										ELECTROLYTES																										OTHER																									
Composition for use on copying paper. D. N. ROZENGAUZ and S. M. NISNEVICH. Russ. 27,555, Jan. 4, 1932. Paraffin and rosin are melted and litharge, lead acetate and MnO ₂ are added.																																																																																																																																																																																					
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1ST AND 2ND ORDERS																										1ST AND 2ND ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
MnO_2, Dr. V. Rosenbaum, Russ. 58,218, Oct. 31, 1940. $MnSO_4$ is oxidized by $NaOCl$ or $KOCl$ in the presence of $NaOH$ or KOH at the ratio $Mn:NaOH:Cl_2 = 1:4:1$, and the ratio $Na(K)OCl:Na(K)OH = 1:2$.																																																			
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MATERIALS INDEX																																																			

ROZENGAUZ, D. V.

Sealing wax. D. V. Rozengauz. Russ. 58,340, Nov.
30, 1910. Alkyl resin is fused with resin in the presence
of Mn resinate and an inorg. filler.

Artificial seals. A. I. Astashevskiy, V. S. Kulochov and

PRECEDENTS AND PROPERTIES INDEX																									
<i>Cd</i> Methylene blue. D. V. Rozengauz. Russ. 59,353, March 31, 1941. Addn. to Russ. 54,405 (C. A. 35, 3102⁹). The method of Russ. 54,405 is modified in that to avoid the use of ZnCl₂ the condensation is carried out in the presence of small amts. of CuSO₄, and this is followed by the addn. of H₂SO₄ to dissolve Fe and Cr hydroxides. 25																									
ASD-SEA METAL CORAL LITHOLOGY CLASSIFICATION																									

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PROCESSES AND PROPERTIES INDEX																			
CH 25 Methylene blue. D. V. Rozengauz. Russ. 54,405, Jan. 31, 1939. <i>p</i>-Aminodimethylaniline is condensed with dimethylaniline in the presence of hyposulfite and $K_2Cr_2O_7$, the latter in excess of the amt. required for conversion to $FeCl_3$ of the $FeCl_3$ formed in the reduction of nitrosodimethylaniline for the formation of the initial soln. of <i>p</i>-aminodimethylaniline.																			
A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION																			
MATERIAL INDEX										AUTHOR INDEX									
SUBJECT INDEX										SUBJECT INDEX									
SUBJECT INDEX										SUBJECT INDEX									

Sealing wax. D. V. Rozengauz. Russ. 58,310, Nov. 30, 1910. Alkyd resin is fused with rosin in the presence of Mn-resinate and an inorg. filler.

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Ear - Cancer

Cancer of the external ear. Vest. oto-rin, 14, No. 2, 1952.

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